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## **Role and meaning of ICT in longlife education**

### **Abstract**

**Contemporary world trends in the education made as a result of social-economical changes and science-technical development had put on the need of a deferent treatment, appointing, organization, realization of longlife learning.**

**Having a foresight of the intensive participation from ICT in all sphere of leaving including the educational sphere brings up the question for promoting the informatics literacy as one of the main competence with which the teacher has to manage so he can successfully realization of the lifelong learning.**

**Exactly in that direction is also this text in which are presented the results of the exploring in Republic of Macedonia for the meaning and the role of ICT in lifelong educational.**

**Key words: ICT, teacher, lifelong learning, informatics literacy.**

***When the teacher will stop reading,  
he needs to leave the classroom”***

***A.Disterveg***

Success and failure, raise and fall-personal and national-on domestic and international scene is determined from the quality that a person has.

The history of civilizations is familiar with a lot of dark actors, pests, experiments from which all systems were falling down, conflicts who provoke wars etc.

We live in a time when we have to understand the euphoric statement from ***Toynbee „Education or catastrophe”***.

The cardinal question of the contemporary world is the quantity and quality of the relationship (interactive) between the permanent process of promotion and shake up the manufacture (material and spiritual) and society and changing the person so he can critically accept, rational and creative use and simultaneously creating new material and spiritual products.

To signify, in the focus of interests of science, economy, culture and politics is how to create ***homo creator***.

Starting from this, comes the question which par excellens is the question of pedagogy, that is - **how do we orient in creating civil and professional performances to young and adults...how to pedagogy of human resources?**

According to this a change is needed in the process of education, revolution in thinking for the need of education after finishing university.

Why?

Because that's an imperative of time in which we live and which shows us that every development is determined from the knowledge.

Education system still generates a classic experiment (qualified worker, technologist, technician, doctor, psychologist, teacher, lawyer etc)

That doesn't suites to the reconstruction and expansion in the economy and civil department who are giving services.

Because of that, the institutions have to response to this default which positively is becoming bigger in the society.

There from, profession should be in context with lifelong learning. That means that teachers should be supported to continue their professional development through their entire carrier<sup>1</sup>.

Teachers should be encouraged to take part in the present innovations and exploring, so they can keep rhythm with the society of knowledge which evolutes.

In that context in this work we will present facts gathered from the exploring which was realized with the regular students, extraordinary students and students who had continued education at the faculty of pedagogy in Stip.

The purpose of this exploring was to establish the condition and check the teachers opinions and ideas about their professional development.

### ***Meaning and role of IKT in lifelong education***

#### **Subject of research**

The subject of this research is the meaning and role of information technology in lifelong education.

**Purpose of research** is to get specifications of teacher's ideas and opinions for further education, their professional development same as the meaning and role of IKT in their lifelong education.

#### **Task of research**

In accordance with this kind of goal are the next tasks:

1. To examine teachers ideas and opinions for the need of further education necessary for their professional development;
2. To examine if there is a stimulative clime for lifelong education in our country;
3. To examine how,throught which forms and who needs to organize and realize lifelong education for teachers cadre;
4. To examine teachers ideas and opinions for the forms and ways of organizing their lifelong education;

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<sup>1</sup> Образование и обука 2010-Лисабонска стратегија за ургентни прашања

5. To examine teachers ideas and opinions for the role and meaning of IKT in their education and the need of implementing that in their lifelong education;
6. To examine the difference between ideas and opinions for the meaning and role of IKT in lifelong education at IV year students and teachers who had continued their education;

### **Hypothesis of research**

#### **Common/general hypothesis**

We assume that there are positive opinions and ideas from the teachers for the meaning and role of IKT in lifelong education.

#### **Subsidiary /Individual hypothesis**

We assume that there is a need of further education necessary for the professional teacher development

We assume that there are no differences in opinions and ideas for the meaning and role of IKT in lifelong education between students and teachers who continued education.

We assume that teachers have positive attitude for the meaning and role of IKT in lifelong education.

### **Methods, techniques and instruments of research**

Descriptive-explicative method will be used. Inquiry with the instrument inquiry list composed of 13 questions by open and closed type, same as free interview with the instrument protocol for interview will be used as techniques for gathering data.

#### **Population and exemplar**

Sample is suitable, made of units of population which are free use to the explorer. It has 118 respondents, from whom 86 are students in year IV at the faculty of pedagogy in Stip and 32 are students-teachers who had continued their education

### **Processing data**

Processing data is done with using %, Hi-square test, as a usage of qualitative-INTERIM analysis.

### **Analysis and interpretation of results**

Interpretation of results in this research will be presented in order by groups of questions as they were shown in the inquiry list and suggested themes for the free interview.

### **Results from the question mark for students and teachers who continued education**

Here are the results from the examined population of educators in preparing year.

We took in foresight also the number and sex of the students and teachers (*table number 1.*)

	Examinees	Sex	
		M	F
Students	86	6	86

Teachers who continued education	32	8	24
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As we can see from the disposed table **number 1.** above, we can come to a conclusion that there are more females included in the teacher's profession .

**Question number 2.** Teacher's professional development is a key question for every country. According to you, how much does our educational system worry for its own cadre after they finish?

Choise	F	%
Yes	17	19.8
No	69	80.2
total	86	100

**Table num.2** Answers from IVth year students

Choise	F	%
Many	2	2.3
Enough	17	19.8
Not enough	40	46.5
Doesn't care at all	27	31.4
total	86	100

**Table number 3.** Answers from teachers who continued education

Choise	F	%
Many	1	3
Enough	7	21.9
Not enough	12	37.5
Doesn't care at all	12	37.5
total	32	100

Table results shows that 46.5% from the students-examinees think that the country doesn't care enough for its own cadre after graduation .Unlike them, teachers who continued education think that the country doesn't care enough or doesn't care at all for the cadre after graduation, that's 75% from the examinees.

**Question num .3.** According to you, do the actual material-technical conditions for work are enough for creating stimulative climate for lifelong education in our country:

**Table num.4.** Answers from IVth year students

Yes	17	19.8
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No	69	80.2
total	86	100

**Table num.5** Answers from teachers who continued education

<b>Choise</b>	<b>F</b>	<b>%</b>
Yes	6	18.8
No	26	81.2
<b>total</b>	<b>32</b>	<b>100</b>

Table results shows that 81.2% from the examinees think that actual material-technical conditions for work are not enough for creating a stimulative clime for lifelong education in our country.

**Question num. 4.** Who should finance your lifelong education?

**Table num. 6.** Answers from IVth year students

<b>choise</b>	<b>f</b>	<b>%</b>
State	50	58.1
Self finance	9	10.5
Institution where you work	27	31.4
total	86	100

According to the answers from both groups of examinees the biggest pre from them-58.1% and 59.4% agree that the state should finance their lifelong education.

**Question num.5.** Who should realize the training after graduation:

**Table num. 8.** Answers from IVth year students

<b>choise</b>	<b>f</b>	<b>%</b>
Faculty	31	36
School	20	23.3
Independent education	4	4.7
Special training center	31	36
total	86	100

**Table num.9.** Answers from teachers who continued education

<b>choise</b>	<b>f</b>	<b>%</b>
Faculty	12	37.5
School	4	12.5
Independent education	4	12.5
Special training center	12	37.5
total	32	100

As we can see from the presented data there are same differences in opinion between students and teachers about organizing those trainings.

The choice of the teachers is that this kind of education should be leaded by the faculties and specialized institutions and the students must have specialized training center.

**Question num. 6.** In which form should lifelong education be realized:

**Table num. 10.** Answers from IVth year students

<b>choise</b>	<b>f</b>	<b>%</b>
Formal	63	73.3
Informality	16	18.6
Informal	7	8.1
total	86	100

**Table num. 11.** Answers from teachers who continued education

<b>choise</b>	<b>f</b>	<b>%</b>
Formal	18	56.2
Informality	7	21.9
Informal	7	26.9
total	32	100

The presented data shows that lifelong education should be realized formally.

**Question num.7** Do you think that every student from faculty of pedagogy as long as he finds a job as a teacher/educator must continue their education/lifelong learning necessary for his professional profil:

**Table num. 12.** Answers from IVth year students

<b>choise</b>	<b>f</b>	<b>%</b>
Yes	76	88.4
No	10	11.6
total	86	100

**Table num. 13** Answers from teachers who continued education

<b>choise</b>	<b>f</b>	<b>%</b>
Yes	22	68.8
No	10	31.2
total	32	100

Presented facts talk about indispensability of continuing the education, important for their professional development.

*Question num.8* In the educational plan and programs at PF as a necessary subject is Basic of informatics. Do you think that the education in this course is enough or not?

**Table num.14** Answers from IVth year students

<b>choise</b>	<b>f</b>	<b>%</b>
Yes	20	23.3
No	66	76.7
total	86	100

**Table num.15** Answers from teachers who continued education

<b>choise</b>	<b>f</b>	<b>%</b>
Yes	20	62.5
No	12	37.5
total	32	100

Presented facts are showing that the students and the teachers think that education in the region of informatics is not enough for their permanent improvement

**Question num.9** According to you how should education be realized in this field?

**Table num.16** Answers from IVth year students

<b>choise</b>	<b>f</b>	<b>%</b>
Formal	73	84.9
Informality	13	15.1
total	86	100

**Table num. 17.** Answers from teachers who continued education

<b>choise</b>	<b>f</b>	<b>%</b>
Formal	19	59.4
Informality	13	40.6
total	32	100

The results from the examinees are showing that there are no big differences between the students and the teachers about the form of education, it is suggested that there should be a formal education in this region.

**Question num. 10** According to you who has to realize the activities from this region?

**Table num. 18** Answers from IVth year students

<b>choise</b>	<b>f</b>	<b>%</b>
Center for CT	73	84.9
Employment agencies	13	15.1
total	32	100

**Table num.19**

Answers from teachers who continued education

<b>choise</b>	<b>f</b>	<b>%</b>
Center for CT	19	59.4
Employment agencies	13	40.6
total	32	100

Presented facts are showing that the centre's for computer education are institutions who have to realize education from the informatics region.

### **Interpreting the results from the interview**

During the research as a additional technique, free interview was used for collecting data. With that we came aware about the meaning and role of IKT in lifelong education for teachers cadre.

The discussion with the teachers and students who were interviewed was arranged before, that means that they were aware of its purpose and themes.

The discussions that were held in the teachers/students rest room were no longer than 40 minutes, they were free and as a backup we used dictaphone. The inferential data speaks about the following:

1. teachers and students are consent about the need of further education necessary for their professional development, which comes as a result of the changes in the educational sphere.
2. It excels the indispensable of using IKT in their learning in a way as: "we live in the era of informatics/computerization in all fields of human living";
3. It excels the meaning and role of IKT in lifelong education as:
  - allows wide horizon, knowledge,
  - offers opportunities for communication,
  - from IT we are learning the newest things,
  - the materials are available for everyone,
  - allows easy presenting the subject matter,
  - improving the education plan.
4. In the same time the teachers and the students gave accent to the need of their further education in this field which contains education for using new programs, as insisting that lifelong education, education for IKT, should be used as a formal form, organized by the special centers.

### **Reasoning perception**



The analysis of the teoretical discussions of this problem as the empiric data to which we came in the exploring using techniques as: analyzing pedagogy documents, interview, inquiry, and participative observing, direct contact with the participants in the examine are leading us to the next facts:

1. The questions that were asked previously, in the introduction, during the examine, had found their answer in the teoretical discusion and in the data as a result of the examine.
2. The conclusions in this examine should not be accepted as categorical because they refer to a concrete example, in actual time. Meanwhile the same should be regarded in a direction of finding approachable ways of realizing lifelong education.
3. Teachers have a need of further education necessary for their professional development.
4. There are no differences in opinions and ideas between the students and the teachers with further education about the meaning and the role of IKT in lifelong education.
5. Teachers have positive attitude for the role and the meaning of IKT for lifelong education.

Lifelong education allows to the person to create his future according to his needs in the society.